

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-6 remain pending in the present application. Claims 1 and 3-6 are amended and may find support at least in Fig. 3 and at pages 5-7 of the specification. No new matter is added.

In the Official Action, Claims 5 and 6 were rejected under 35 U.S.C. §112, first paragraph; Claims 1 and 3 were rejected under 35 U.S.C. §102(e) as unpatentable over Hirosawa et al. (U.S. Pat. No. 6,434,276, hereinafter “Hirosawa”); Claim 5 was rejected under 35 U.S.C. §103(a) as unpatentable over Hirosawa in view of undocumented assertions as to the method steps of “image inputting, motion calculating, displacement calculating and image outputting in a computer readable tangible storage medium such as a CD-ROM.” Claims 2 and 4 were indicated as allowable, and Claim 6 was indicated as being allowable if rewritten to overcome the 35 U.S.C. §112, first paragraph, rejection.

Firstly, Applicants acknowledge with appreciation the indication of allowable subject matter in Claims 2, 4, and 6.

Regarding the 35 U.S.C. §112, first paragraph rejection of Claims 5 and 6 on page 2 of the Official Action, Claims 5 and 6 have been amended to recite “a recording media encoded with an image compensation program configured to cause an information processing apparatus to execute a method.” This may find support at least on page 9 of Applicants’ specification. Thus, it is respectfully requested that the 35 U.S.C. § 112 rejection be withdrawn.

The Official Action has rejected Claims 1 and 3 under 35 U.S.C. § 102(e) as unpatentable over Hirosawa. Applicants respectfully traverse the rejection.

By way of review, Claim 1 is directed to an image processor (annotated here for illustrative purposes only and with reference to Applicants' Figs. 3 and 5). The image processor includes a motion calculator, a displacement calculator, and an image output unit. Claim 1 has been amended to clarify that the motion calculator calculates a motion vector (14) between the first image and the second image based on projective data that is acquired by computing, in a predetermined direction, pixel values in each of the predetermined motion detecting areas (6). The displacement calculator calculates an image correlativity between a basic image area of the first image and each of a plurality of areas of the second image, the areas of the second image (15) being along the direction of the motion vector (14), and calculates an amount of pixel displacement, based on the image correlativity. The image output unit cuts away an area from a camera-shake compensation area (13) designated in the second image based on the amount of pixel displacement and outputs the cut away area as an image for the image output area (12) of the second image.

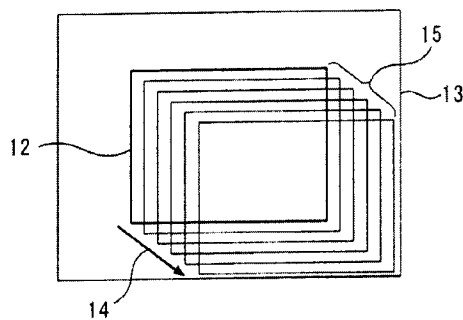


Fig. 5

(d)

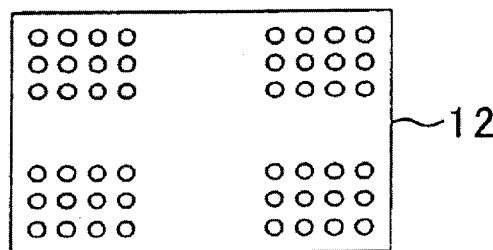


Fig. 4(d)

Hirosawa was cited in the Official Action as corresponding to the Claim 1 feature of a displacement calculator (Fig. 1, correlation calculating section 5 of Hirosawa) configured to calculate image correlativity (Hirosawa: "correlation calculation is performed") between a basic image area of the first image and each area of the second image, the each area of the second image is along the direction that the motion vector calculated by the motion calculator designates, (Hirosawa: "It is preferable to perform the correlation calculation while searching

the neighborhood of the region which is corrected by the motion amount of the previous frame”) and configured to calculate the amount of pixel displacement (Hirosawa: “motion amount”), based on the correlativity calculations (col. 8 line 9 - col. 9, line 35 of Hirosawa).

Hirosawa is directed to taking multiple images of a part of an image, synthesizing the images, and transmitting a resulting whole image. More specifically, Hirosawa describes capturing an image of a *stationary* document in which black characters are written on a white background.

Firstly, Applicants point out that, in Hirosawa, the motion amount is calculated by feature point extraction and is received by an image receiving section 32 to detect a motion amount of an image on an imaging plane. In contrast, Claim 1 defines “a motion vector between the first image and the second image based on projective data that is acquired by computing, in a predetermined direction, pixel values in each of the predetermined motion detecting areas.”

Indeed, the motion amount in Hirosawa is determined by *extracting feature points* (points of large luminance change) from image F1 captured between time T1 and T2, and from image F2 captured between time T2 and T3. Then, a correlation is calculated on *all the feature points* of the image F1 which were extracted between T1 and T2, and all pixels *in the neighborhood of* specific positions in the image F2 which correspond to the above-mentioned F1 feature points. Accordingly, the specific positions in the image F2 are corrected by a motion amount.

Further, in Hirosawa, feature point extraction is based on whether the luminance gradient exceeds a threshold or not (i.e., whether the absolute difference of *adjacent pixels* exceeds the threshold or not). According to Hirosawa, if the absolute difference exceeds the threshold, the luminance and coordinates of the feature point are used to determine the search range for the correlation calculation. Further, the search range in Hirosawa is fixed and

occurs only in one of two images. Thus, Applicants submit that Hirosawa does not disclose or suggest “a displacement calculator configured to calculate an image correlativity between a *basic image area* of the first image and *each of a plurality of areas of the second image*, the each of the areas of the second image *being along the direction of the motion vector...*,” as recited in amended Claim 1.

Further, Hirosawa describes that the area in the search range of image F1 and the feature points of the image F1 are subject to a calculation in a correlation calculating section, to obtain a motion amount. See Fig. 6 of Hirosawa. In contrast, the displacement calculator defined in Claim 1 is configured to configured to calculate an amount of pixel displacement, based on the image correlativity.

Thus, Applicants respectfully submit that Hirosawa, does not disclose or suggest “a displacement calculator configured to calculate an image correlativity between a basic image area of the first image and each of a plurality of areas of the second image, the each of the areas of the second image being along the direction of the motion vector, and configured to calculate an amount of pixel displacement, based on the image correlativity,” as recited in Claim 1. Therefore, Claim 1 is believed to patently define over Hirosawa.

Amended Claims 3 and 5, while differing in scope and statutory class from Claim 1, patentably define over Hirosawa for substantially the same reasons as Claim 1. Accordingly, it is respectfully submitted that Hirosawa does not anticipate or make obvious the features of amended Claims 3 and 5. Therefore, independent Claims 3 and 5 are believed to patentably define over the applied reference.

Further regarding the rejection of Claim 5, with specific regard to the above-noted undocumented assertions as to the method steps of “image inputting, motion calculating, displacement calculating and image outputting in a computer readable tangible storage medium such as a CD-ROM,” M.P.E.P. § 2144.03 states that it is never appropriate to rely

solely on common knowledge in the art without evidentiary support in the record, as the principal evidence upon which the rejection is based. Accordingly, Applicants traverse the 35 U.S.C. § 103(a) rejection based on the above-noted undocumented assertions in the outstanding Office Action for the reason that, without the temporal and structural context by which these features are known to the artisan, it is impossible to conclude that it would be obvious for one of ordinary skill in the art at the time of the invention to combine those noticed features with the art of record. Indeed, the context by which these features are allegedly known might itself provide reasons to rebut a *prima facie* case of obviousness.

Thus, Applicants submit that the Official Action has failed to produce a *prima facie* case of obviousness. Should the Examiner insist on maintaining the rejection, Applicants respectfully request that the Examiner provide evidence to support the above-noted undocumented assertion.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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